REMARKS/ARGUMENTS

Reconsideration of this application is requested. Claims 78-80 are under consideration. Claims 1-77 and 81-127 are withdrawn from consideration.

I. THE OBVIOUSNESS REJECTION

Claim 78 stands rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. patent 5,278,379 to Martuza et al. (Martuza) in view of U.S. patent 5,677,178 to McCormick. The rejection is respectfully traversed.

The present invention provides a method for identifying a virus likely to have antineoplastic activity in a mammal. The method comprises (a) using a candidate virus not previously known to possess antineoplastic activity to infect (i) cells deficient in an interferon-mediated antiviral activity, and (ii) cells competent in the interferon-mediated antiviral activity, and (b) determining whether the amount of the virus required to kill the cells deficient in the interferon-mediated antiviral activity is at least 5-fold less than the amount of the virus required to kill the cells competent in the interferon-mediated antiviral activity. A determination that the amount of the virus required to kill the cells deficient in the interferon-mediated antiviral activity is at least 5-fold less than the amount of the virus required to kill the cells competent in the interferon-mediated antiviral activity indicates that the virus is likely to have antineoplastic activity in a mammal.

The Examiner asserts that Martuza discloses a screening method for identifying antineoplastic viruses by contacting a recombinant herpes simplex virus (HSV) with a population of tumor cells, and comparing the ability of the virus to replicate in the tumor

cells with the ability of the virus to replicate in a population of non-tumor cells (the tumor cell population may comprise HepG2 cells, breast carcinoma cells, or SW480 colon cells - col. 20, lines 12-27). The Examiner further asserts that Martuza does not expressly disclose that its tumor cell population is deficient in interferon-mediated *antiviral* activity, but takes the position that the present specification discloses that HepG2 cells, breast carcinoma cells, and SW480 cells are deficient in interferon-mediated antiviral activity. The Examiner's position is respectfully traversed.

It was not known until the present invention that it is possible to utilize viruses to exploit defects in the interferon mediated antiviral response present in cancer cells. The present invention is based on this surprising discovery. As one of ordinary skill at the filing date of the present invention would not have been aware of this, there would have been no motivation to arrive at the presently claimed methodology in light of Martuza and McCormick, either taken alone or in combination. Indeed, as the MCF7 breast carcinoma and SW480 colon tumor cell lines, cited by the Examiner as being deficient in interferon-mediated antiviral activity, are even less sensitive to HSV than the fibroblast cell line Detroit 551 (Martuza: column 20, lines 12-27), Martuza leads away from the present invention, and one of ordinary skill would not have arrived at the present invention based on the breast cancer and colon cancer cell lines described by Martuza.

The above-noted deficiencies of Martuza are not cured by McCormick. McCormick is relied upon as allegedly describing measuring the ability of a virus to preferentially infect a tumor cells. However, since Martuza fails to suggest the presently claimed method for the above-discussed reasons, it is clear that one of ordinary skill

would not have been motivated to arrive at the presently claimed invention based on the combined disclosures of Martuza and McCormick. Absent any such motivation, a *prima facie* case of obviousness has not been established in this case. Withdrawal of the outstanding obviousness rejection is respectfully requested.

II. CLAIMS 79 AND 80

It is noted with appreciation that claims 79 and 80 are allowable. With the arguments presented above, it is believed that claims 78-80 are now in allowable condition. Early notice to that effect is requested.

Favorable action on this application is awaited.

Respectfully submitted,

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